

First : the multichoice questions “each question for one mark”

(1)	If $e^y = xy$ then $\frac{dy}{dx} = \dots\dots\dots$						
(a)	$\frac{x}{y(x-1)}$	(b)	$\frac{y}{x(y-1)}$	(c)	$\frac{-y}{x(y-1)}$	(d)	$\frac{-x}{y(x-1)}$

(2)	$\int \frac{\cos(\ln x)}{x} dx = \dots\dots\dots + C$						
(a)	$\sin(\ln x)$	(b)	$-\cos(\ln x)$	(c)	$\cos(\ln x)$	(d)	$-\sin(\ln x)$

(3)	$1 + \omega i + (\omega i)^2 + (\omega i)^3 + \dots\dots + (\omega i)^{95} = \dots\dots\dots$						
(a)	0	(b)	1	(c)	ω	(d)	i

(4)	If the term free of x in the expansion of $(ax^2 - \frac{b}{x})^9$ equals 672, then $ab^2 = \dots\dots\dots$						
(a)	1	(b)	2	(c)	-1	(d)	-2

(5)	If: $\vec{A} \cdot \vec{B} = \sqrt{3}$ and $\vec{A} \times \vec{B} = \hat{i} + 2\hat{j} + 2\hat{k}$, then the measure of the angle between the two vectors $\vec{A}$ and $\vec{B} = \dots\dots\dots^\circ$						
(a)	30	(b)	45	(c)	60	(d)	90

(6)	If: $x + 2y = 8$ then the maximum value of xy is						
(a)	4	(b)	8	(c)	16	(d)	32

(7)	If $\int (\ln x)dx = ax \ln x + bx + c$, then $a + b = \dots\dots\dots$						
(a)	0	(b)	1	(c)	-1	(d)	2

(8)	If : $3\vec{A} + 2\vec{B} = \vec{O}$ (where $\vec{O}$ is the zero vector) and the direction angles of $\vec{A}$ are $(120^\circ, 120^\circ, \theta^\circ)$, then the directed angles of $\vec{B}$ can be		
(a)	$(120^\circ, 120^\circ, 45^\circ)$	(b)	$(60^\circ, 60^\circ, 90^\circ)$
(c)	$(60^\circ, 60^\circ, 135^\circ)$	(d)	$(120^\circ, 120^\circ, 135^\circ)$

(9)	If the coefficients of 8 th term and 18 th term in the expansion of $(x + y)^n$ are equal, then the coefficient of the middle term =				
(a)	$^{26}C_{13}$	(b)	$^{25}C_{13}$	(c)	$^{24}C_{12}$
		(d)	$^{24}C_{13}$		

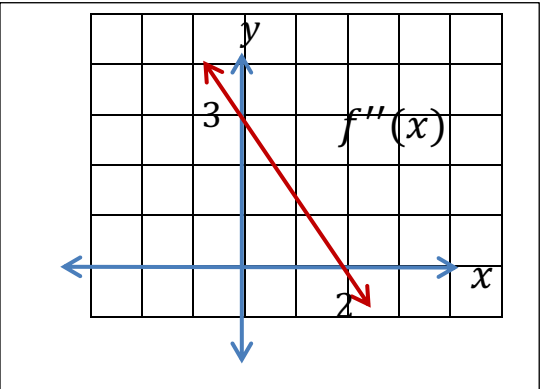
(10)	If $\frac{dy}{dx} = e^{2x-y}$, where the curve of the function $y = f(x)$ passes through the origin point then				
(a)	$y = \ln(1 + e^{2x}) - \ln 2$	(b)	$y = 2x$		
(c)	$y = \ln(2x + 1)$	(d)	$y = e^{2x} - 1$		

Second : the multichoice questions “each question for two marks”

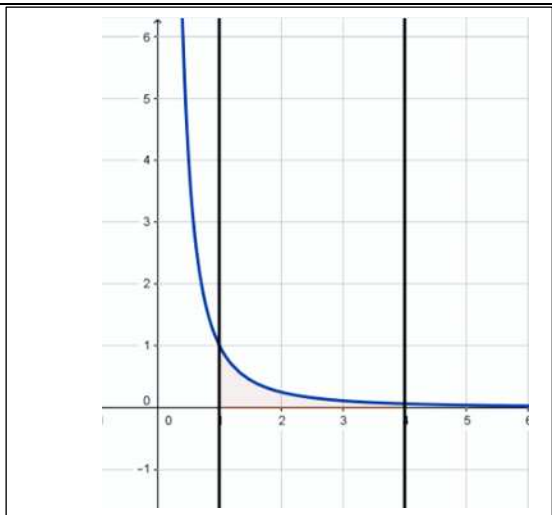
(11)	The line : $x = 2y = 3z$ cuts the plan $x + 2y + 3z = 18$ at the point				
(a)	(6, 3, 2)	(b)	(2, 3, 6)	(c)	(12, 6, 4)
		(d)	$(2, 3, \frac{8}{3})$		

(12)	If : $Z_1 = 2 - 2i$, $Z_2 = \sqrt{3} + i$, $Z_3 = a + bi$ where $ Z_1 Z_3 = 16$ and the amplitude of $\frac{Z_3}{Z_2} = \frac{7\pi}{12}$,then $(a, b) = \dots$				
(a)	(4, 4)	(b)	(4, -4)	(c)	(- 4, 4)
		(d)	(- 4, - 4)		

(13)	If the measure of the angle between the two lines $L_1: x = 1, \frac{4-y}{m} = \frac{z+5}{1}$, $L_2: \vec{r} = (-\hat{j} + 5\hat{k}) + t(-\hat{i} + \hat{k})$ equals 60° , then $m = \dots\dots\dots$				
(a)	± 1	(b)	± 2	(c)	zero
		(d)	$\frac{1}{2}$		

(14)	The opposite figure represents the curve of the function $f''(x)$ if $f'(-1) = f'(5) = 0$, then the curve of $f(x)$ has local maximum value at $x = \dots\dots\dots$				
					
(a)	zero	(b)	2	(c)	- 1
		(d)	5		

(15)	If $y = \sin \theta$, $x = \cos \theta$, then $y \frac{d^2y}{dx^2} + \left(\frac{dy}{dx}\right)^2 = \dots\dots\dots$						
(a)	0	(b)	1	(c)	-1	(d)	2

(16)	The opposite figure represents a part of the graph of the function $f: f(x) = \frac{1}{x^2}$ then the equation of the vertical line that divides the shaded region between the curve and over x-axis and the two straight lines $x = 1$ and $x = 4$ into two equal parts in area is $x = \dots\dots\dots$						
(a)	2	(b)	3	(c)	$\frac{8}{5}$	(d)	$\frac{6}{5}$

(17)	If the coefficient of x^2 in the expansion $(1 + x)^{11}(1 - x)^9$ equals						
(a)	2	(b)	-2	(c)	8	(d)	-8

(18)	The absolute maximum value of $f: f(x) = e^{-x^3}$ in the interval $[-1, 1]$ equals						
(a)	0	(b)	e	(c)	$\frac{-1}{e}$	(d)	1

Third: the essay questions “each question for two marks”

(19)	If $1, \omega, \omega^2$ are the cubic roots of one , prove that: $\left(\omega + \frac{1}{\omega}\right)^2 + \left(\omega^2 + \frac{1}{\omega^2}\right)^2 + \left(\omega^3 + \frac{1}{\omega^3}\right)^2 + \left(\omega^4 + \frac{1}{\omega^4}\right)^2 + \left(\omega^5 + \frac{1}{\omega^5}\right)^2 + \left(\omega^6 + \frac{1}{\omega^6}\right)^2 = 12$					
(20)	If the rate of increasing of the surface area of a square at a certain moment equals three quarters of the rate of increasing of its perimeter numerically, find the length of its side at this moment.					

موقع الدكتور محمد رزق التعليمي



امسح الباركود بالمويل لتثبيت
التطبيق وتحميل كل الملازم مجاناً وبسرعه



حمل التطبيق الآن



كورسات ونتائج امتحانات



ملازم ثانوي



ملازم اعدادي



ملازم ابتدائي



موقع الدكتور محمد رزق
Dr. Mo. RIZK



D.M.RAZK

موقع الدكتور محمد رزق معلم الكيمياء التعليمي

**اجابه الامتحان الاسترشادي الثامن رياضه بحتة لغات
انجليزي 2026 موقع الدكتور محمد رزق التعليمي**

الاجابة	رقم السؤال
B	1
A	2
A	3
B	4
C	5
B	6
تم بواسطه موقع الدكتور محمد رزق التعليمي	
A	7
C	8

C	9
A	10
A	11
B	12
A	13
D	14
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C	15
C	16
D	17
B	18

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If $1, \omega, \omega^2$ are the cubic roots of one, prove that:

$$\left(\omega + \frac{1}{\omega}\right)^2 + \left(\omega^2 + \frac{1}{\omega^2}\right)^2 + \left(\omega^3 + \frac{1}{\omega^3}\right)^2 + \left(\omega^4 + \frac{1}{\omega^4}\right)^2 + \left(\omega^5 + \frac{1}{\omega^5}\right)^2 + \left(\omega^6 + \frac{1}{\omega^6}\right)^2 = 12$$

$$L.H.S: \left(\omega + \frac{1}{\omega}\right)^2 + \left(\omega^2 + \frac{1}{\omega^2}\right)^2 + \left(\omega^3 + \frac{1}{\omega^3}\right)^2 + \left(\omega^4 + \frac{1}{\omega^4}\right)^2 + \left(\omega^5 + \frac{1}{\omega^5}\right)^2 + \left(\omega^6 + \frac{1}{\omega^6}\right)^2$$

$$(\omega + \omega^2)^2 + (\omega^2 + \omega)^2 + (1+1)^2 + (\omega + \omega^2)^2 + (\omega^2 + \omega)^2 + (1+1)^2$$

$$(-1)^2 + (-1)^2 + (2)^2 + (-1)^2 + (-1)^2 + (2)^2$$

$$1+1+4+1+1+4 = 12 = R.H.S$$

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If the rate of increasing of the surface area of a square at a certain moment equals three quarters of the rate of increasing of its perimeter numerically, find the length of its side at this moment.

$$\begin{array}{l|l} A = x^2 & P = 4x \\ \frac{dA}{dt} = 2x \frac{dx}{dt} & \frac{dP}{dt} = 4 \frac{dx}{dt} \end{array}$$

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Rate of increasing of the surface area of a square at a certain moment equals three quarters of the Rate of increasing of its perimeter numerically.

$$\begin{array}{l} \frac{dA}{dt} = \frac{3}{4} \frac{dP}{dt} \quad \therefore 2x \frac{dx}{dt} = \frac{3}{4} \times 4 \frac{dx}{dt} \\ \therefore 2x = 3 \\ \therefore x = \frac{3}{2} \end{array}$$

تم الاجابه من خلال موقع الدكتور محمد رزق التعليمي
والمصدر قناه مدرستنا 3

موقع الدكتور محمد رزق التعليمي



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موقع الدكتور محمد رزق
Dr. Mo. RIZK



D.M.RAZK

موقع الدكتور محمد رزق معلم الكيمياء التعليمي